California GARDEN

NOVEMBER – DECEMBER 1981
Seventy-five Cents
Volume 72 No. 6
ISSN 0008-1116

FLORAL EVENTS

NOV 5, 12, 19

THURSDAY WORKSHOP – "Open to the Public"
Free Floral Crafts Instructions – Pay us a visit; you might like to join us.
Casa del Prado, *San Diego Floral Asso.* Garden Center, Balboa Park, San Diego
10:00 a.m. to 3:00 p.m. For info call Mrs. Kulot 222-5480.
(Note: No Thursday Workshop in December or January.)

NOV 14

TOUR: *ENSENADA TRIP*
Saturday – $20 – No host luncheon – Reservations: 232-5762
1st pick-up: La Jolla Library (Wall & Girard Sts.) at 8:00 a.m.
2nd pick-up: Balboa Park (behind Organ Pavilion) at 8:30 a.m.
Return: Approx. 6:30 p.m.

NOV 17

FLOWER ARRANGING with Adrienne
Casa del Prado, Majorca Room, Balboa Park, San Diego
For information call Mrs. Hoyt (296-2757)

DEC 3 (Preview)
DEC 4,5,6 (Public Shows)

SAN DIEGO FLORAL ASSOCIATION ANNUAL CHRISTMAS SHOW
"CHRISTMAS IS EVERYWHERE"
Casa del Prado, Majorca Room, Balboa Park, San Diego
Preview for members and guests: Thursday, 7:30 p.m.
Public Shows: Fri. & Sat., 11:00 a.m. to 9:00 p.m. – Sun: 11:00 a.m. to 4:00 p.m. FREE

SHOWS

NOV 1

SAN DIEGO TROPICAL FISH SOCIETY ELEVENTH ANNUAL SHOW
Casa del Prado, Majorca Room, Balboa Park, San Diego
Sunday: 9:00 a.m. to 4:30 p.m. FREE

NOV 7

THIRD ANNUAL *CALIFORNIA NATIVE PLANT SOCIETY* PLANT SALE
Rancho Santa Ana Botanic Gardens, 1500 North College Ave., Claremont, California
Saturday: 8:00 a.m. to 3:00 p.m.

NOV 11, 12, 13

FLOWER SHOW SCHOOL (Course I)
Sponsored by the *Desert Empire District of California Garden Clubs, Inc.*
Virginia Innis of San Diego Floral is one of the instructors on Artistic Design
Officers' Club, U.S. Marine Corps Logistic Base, Barstow, Calif. (sign on Hwy. 40)
For information call Mrs. B. B. Puddy (714) 487-2038

NOV 21, 22

SAN DIEGO COUNTY ORCHID SOCIETY ANNUAL FALL MINI SHOW
Casa del Prado, Majorca Room, Balboa Park, San Diego
Sat: Noon to 5:00 p.m. Sun: 10:00 a.m. to 5:00 p.m. FREE

NOV 28, 29

SIXTH ANNUAL SUMI-E PAINTING & IKEBANA ARRANGEMENT SHOW
Casa del Prado, Majorca Room, Balboa Park, San Diego
Sat. & Sun: 11:00 a.m. to 4:00 p.m. FREE

DEC 4, 5

BALBOA PARK'S FOURTH ANNUAL **"CHRISTMAS ON THE PRADO"**
Sponsored by *The House of Hospitality* and *Museums of San Diego*
FRIDAY & SATURDAY: 5:00 TO 9:00 PM F R E E
Friday Main Event (8:00 p.m.): Candlelight Procession with Choral Groups
Saturday Main Events: (5:00 to 6:00 p.m.) U.S. NAVY BAND (Plaza de Panama)
(8:00 p.m.) SOUNDS OF CHRISTMAS w/Big Bands (Organ Pivilion)

DEC 4, 5, 6

SAN DIEGO FLORAL ASSO. ANNUAL CHRISTMAS SHOW *"CHRISTMAS IS EVERYWHERE"*
Come visit Santa's Boutique
Casa del Prado, Majorca Room, Balboa Park, San Diego
Fri. & Sat: 11:00 a.m. to 9:00 p.m. Sun: 11:00 a.m. to 4:00 p.m. FREE

DEC 6

"CHRISTMAS IN FLOWERLAND" BAZAAR
Quail Botanical Gardens, Ecke Family Bldg., 230 Quail Gardens Dr., Encinitas, California
Sunday: 10:00 a.m. to 4:00 p.m. FREE

DEC 6 through 13

SOUTH COAST BOTANIC GARDEN FOUNDATION ANNUAL SHOW "YULETIDE NEAR & FAR"
2630 Crenshaw Blvd., Palos Verdes Peninsula, California
Hours: 9:00 a.m. to 4:30 p.m. – Admission $1.00 (50¢ ages 5-17, over 62)

DEC 8

LA JOLLA GARDEN CLUB ANNUAL CHRISTMAS SHOW "POTPOURRI"
Benefit for the ALICE CLARK SCHOLARSHIP FUND
La Jolla Woman's Club, 715 Silverado (at Draper), La Jolla, Calif.
Tuesday – Noon to 5:30 p.m. Donation: $2.50

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Season's Greetings

California GARDEN

Library of Congress No. ISSN 0008 1116

Published Since 1909
by
SAN DIEGO FLORAL ASSOCIATION
and
GARDEN CENTER
Casa del Prado, Balboa Park, San Diego, CA 92101
Monday through Friday 10:00 a.m. to 3:00 p.m.
232-5762

VOLUME 72 NUMBER 6

Front Cover: An air brush design by Ilse Scheer from an arrangement by Polly Whigham. Ilse is a free-lance designer for the paper industry.

Back Cover: Designed by Marj Mastro, artist for the Unified School District of San Diego, California.

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STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION:
1. CALIFORNIA GARDEN Magazine 1[a]. 084020 2. Sept. 29, 1981 3. Bi-month 3[a]. Six 3[b]. $4.00 4. Casa del Prado, Balboa Park, San Diego, CA 92101 5. (same as item 4) 6. San Diego Floral Asso., Casa del Prado, Balboa Park, San Diego, CA 92101; Robert O. Brooks, 3158 Admiral Ave., San Diego, CA 92123; Allethe Macdonald, 3933 St. James Pl., San Diego, CA 92103 7. San Diego Floral Asso. (Corp), Casa del Prado, Balboa Park, San Diego, CA 92101 8. None 9. Not changed 10[a]. 3000, 3000 10[b-1] 137, 98 10[b-2]. 2307, 2352 10[c]. 2444, 2450 10[d]. 128, 127 10[e]. 2572, 2577 10[f-1]. 428, 423 10[f-2]. N/A 10[g]. 3000, 3000. Robert O. Brooks

© CALIFORNIA GARDEN (USPS 084-020) is a non-profit publication of the San Diego Floral Association, a non-profit horticultural organization. The magazine is published bi-monthly for $4.00 per year; $7.50 for two years, by San Diego Floral Association, Casa del Prado, Balboa Park, San Diego, California 92101. Manuscripts are invited. Manuscripts and illustrations submitted will be handled carefully, but we cannot assume responsibility for their safety. All opinions expressed are those of the author and do not necessarily reflect the views of the editors or the San Diego Floral Association. "Hortus Third" is the authority for all botanical names used in this magazine. Entered as second-class matter, December 8, 1910, at the Post Office of San Diego, California, under the Act of March 3, 1879.

POSTMASTER: SEND FORM 3579 ADDRESS CHANGES TO:
CALIFORNIA GARDEN, CASA DEL PRADO, BALBOA PARK, SAN DIEGO, CA 92101

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FLORAL ASSOCIATION MEETING

NOV. 11, 1909—

The results of the Third Fall Flower Show, in the U.S. Grant Hotel, were discussed at the regular November meeting of the San Diego Floral Association, held in the home of Mr. & Mrs. C. A. Scott.

HOLIDAY GREETINGS

FROM

San Diego Floral Association
CALIFORNIA GARDEN

CHRISTMAS GIFT PLANTS

CARE AND FEEDING

by *Philip Johnson*

Mr. Johnson is a landscape and pest control consultant.

FROM AMARYLLIS TO zygocactus there is a wide variety of flowering gift plants we receive at Christmas time. Beautiful gifts to enjoy for the moment, yes and for years to come. How much enjoyment they give us and for how many years depends largely on the care we give them. Here are some suggestions that may help you to enjoy your gift a little longer or even a lot longer.

Phalaenopsis

Drawing by Pat Maley

While each species of plant has its own ideal preference of light, soil moisture, air humidity, and temperature conditions, these factors can be varied somewhat and excellent results of growth and flowering can still be expected. Many of these gift plants have been grown in a highly controlled environment to bring them to their peak of show as fast as possible for your immediate pleasure. Extreme and/or sudden changes from a relatively constant growing condition may cause some drastic results with loss of flowers or even total collapse of the plant in a few days. The most severe damage would be produced by changes in temperature alone or in combination with air humidity.

Probably the question most often asked and the one that gets more different answers is, "How much water?" Well, there is no one answer because of many variable factors. It may be different in your home than it is in ours because of possible differences in average room temperature, minimum night temperature, brightness of light, and air circulation, to mention some.

Generally speaking the soil in the pot should be kept moist, that is, not allowed to remain wet for an extended period after watering, nor should it get dry to the point of causing the plant to wilt. The best measuring device to determine if the plant needs a drink is your finger, probed gently into the soil about 1 inch deep. If it feels moist then there should be enough water for at least one more day. If the finger comes up dry then a thorough watering is indicated. This means enough water to wet all the soil, with an excess draining out of the bottom of the pot. Be sure there is a hole through that pretty paper wrapping.

In order for plants to bloom well they need

good strong light, but not necessarily direct sunlight, particularily through a window. Direct sunlight through a window may cause some bad sunburn, although some early morning or late afternoon sun may be tolerated. The flower color and quality will certainly hold up better in good light. Flowers may sometimes last longer in areas with less light, but the color seems to fade.

When one thinks of Christmas gift plants probably the first to come into mind is the poinsettia—a highly hybridized plant bearing many little yellow flowers surrounded by huge clusters of bright red leaves or bracts. These bracts may be colored red, pink, cream-white, or even splashed pink and red. Grown in controlled greenhouses for maximum color effect, poinsettias are among the most sensitive to extreme environmental change. Adequate water and strong light are essential to maintain long lasting beauty. Moderate home room temperature with minimum night drops to 60° to 63° is very good, but try to avoid a drafty area. A regular feeding with a balanced 8-8-8 fertilizer every other week will help to hold those colorful leaves for up to two or three months. Planting outdoors in the garden should be delayed until warmer weather in the late spring.

Another favorite is the cyclamen with spectacular flying blooms that range in color from white to brilliant reds through shades of pink and coral and lavender to cerise and purple. With all this color the cyclamen, however, does not make the best of house plants. Its cool temperature and strong light requirements make it an ideal subject for the patio or lathhouse. Outdoors these plants flower for months as they grow larger and larger. Probably twice during the growing season they will need repotting into larger containers using a light fibrous potting soil. The warm and dry conditions of indoors during the winter will soon cause the cyclamen to stop flowering and even reduce leaf growth. This happens naturally outdoors when the late spring and summer weather becomes too warm. Keep them cool, moist, fed regularly and enjoy these upside down, inside-out flowers for months.

Orchids of several genera make prized gift plants and the flowers of many last for a long time as well as giving promise of more next year. Among the long lasting kinds are the cymbidiums, phalaenopsis or moth orchid, and paphiopedilum or lady slipper.

While the cymbidium and paphiopedilum are cool outdoor growers, they can be thoroughly enjoyed indoors during their extended flowering period. Important in their care is frequent, twice a week, and thorough, pot-drenching watering. The best way to do this is to take the plant to the sink or out to the patio

Merry Christmas! **Drawing by Ilse Scheer**

and run water through the pot. Ordinary tap water will do fine as long as it is not softened water. Fertilizing every two weeks with a liquid 2-10-10 fertilizer, one tablespoon per gallen of water, is also important. Strong light, but not direct sunlight, does make a difference too.

After the flowers are gone remove the spent stem and put the plant outdoors in a bright light area and continue watering and fertilizing. About the first of April change the fertilizer to a high nitrogen formula such as 30-10-10 to promote lush foliage growth, returning to the 2-10-10 about the first of September to begin the flowering period.

The phalaenopsis need warmer temperatures and do very well in a well lighted room with some humidity, such as a kitchen. These orchids continue to grow new flowers on the long arching stems and can be enjoyed over a long time. Again frequent and thorough watering is essential and regular feeding to maintain healthy active leaf growth as well as continued flowering. Here we use a balanced 20-20-20 fertilizer every two weeks all year around.

Cattleya hybrid orchids have spectacular flow-

ers in a full color range and add an exotic touch to any home. These orchids too need high light and warm temperature, frequent watering, and regular feeding. In some locations along the coast they can be grown outdoors in protected spots. Fertilize with 20-20-20 every two weeks to keep good growth active for next season's flowers.

In recent years the Reiger begonia has become popular as a flowering gift plant. Single or double flowers in cream-white, soft yellow, apricot and salmon to orange and brilliant red, and shades of pink with foliage variations in color and shape give a wide variety to choose from.

Unlike most begonias, which prefer a cooler outdoor location, these do better inside where it is warmer and perhaps a little drier. Strong light and moderate feeding keep them flowering several months. When the flower stems begin to get a bit sparse, cut the plant back about one-third and new growth and flowers will soon appear. Powdery mildew may become a problem if the location is too cool and damp. Treatment with a fungicide will help in control as would a change of location.

These are but a few of the many flowering plants you may receive this holiday season and I hope these suggestions will help you to enjoy them more this year and keep them for enjoyment in years to come. □

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BOOK REVIEW

The New York Botanical Garden Illustrated Encyclopedia of Horticulture, Volume 5, G to Id, by Thomas H. Everett. Garland Publishing, Inc., 136 Madison Ave., New York, NY 10016, and London, pages 1423 to 1776, 1981

Volume 5, is quite up to the mark of its predecessors, especially for its discussion of some of our favorite flowers and types of gardens, and for the constant stimulation of magnificent pages of color photographs.

Among the major flower genera covered are the gentian, geranium, gladiolus, grape, haworthia, hebe, hedera (ivy), hemerocallis (daylily), hibiscus, hippeastrum (amaryllis), hosta (funkia), hyacinth, hydrangea, and hypericum (St. John's wort). Because what are usually known as geraniums are really pelargoniums, the editor has devoted one article to the true geranium and in a second one he has treated "geraniums" which are technically pelargoniums in some detail. It is also of some interest that he accepts either gladioluses or gladioli for the plural of that popular flower.

Volume 5 is particularly rich in general articles, especially on greenhouses and treatment of various species in them, methods of grading garden plots, detailed discussion of grafting methods, care of gift plants, on hedges and their usefulness in garden design, a great deal about herb gardens, and above all, the long and generously illustrated treatment of house plants.

Occasionally, the editor allows a bit of personal feeling to break through his Spartan discipline, as in this sentence from the article on herb gardens: "Seeds of annual and biennial sorts must be sown each year, an activity that brings pleasure second only to harvesting, or perhaps greater for it holds forth promise as contrasted with marking accomplishment."

And if you would like to know what a ha-ha is, look on page 1575. □

Reviewed by *RUSSELL P. MacFALL*

A GARDEN IS FOR BIRDS
As Well As For People

by *Helen Chamlee*

Photos by *Russell P. MacFall*

MOCKINGBIRD—Nest is a bulky cup 6 to 8 inches wide, of coarse twigs, rags, string, and leaves, lined with fine grasses and rootlets, sometimes hair or plant down. Eggs—2 to 5, pale greenish blue, speckled, spotted and blotched with light red or red-brown.

A CANARY IN a cage needs water, food and shelter (protection). The needs of wild birds are the same—water, food and shelter. Birds will find these things in a garden thoughtfully planned with their needs in mind, and they will add color, sound and motion to the garden scene.

Water for drinking or bathing can be provided in a sturdy pan, a birdbath or an elaborate cascade or fountain. Pools, streamlets and even dripping faucets respond also to this need. The water supply should be kept clean, and it should be safe from predators. A pan on a pole or hung from a wire, the traditional bird basin on a pedestal—these are safe so long as they are far enough away from tree branches, walls or fences that no hungry cat could leap on an unwary bird.

A water source on the ground should have about 6 feet of clear space around it if possible, and there should be a perching place nearby where the bird visitor can pause to survey the scene and see who else is coming. This perch serves also as a clothesline—a place where birds can shake and dry their feathers after a shower or a dip.

Shelter for a bird means a certain amount of protection from heat, cold, rain, snow, and wind. For small birds—the ones we can expect to see in our gardens, it means a refuge from birds of prey and from four-footed carnivorous animals.

Shelter means also a place to build a nest and rear young, and sometimes simply a place to rest. To provide for a variety of birds there should be a variety of nesting and feeding habitats—both tall trees and open space as well as thickets of dense shrubs. Spiny shrubs will discourage cats.

Some birds, for example orioles, spend most of their time high off the ground. Tall trees suit them fine, especially when sources of fiber are nearby, as in palms and bananas. In the country orioles gather horsehairs from barbed wire fences to use in weaving and securing their elaborate hanging nests.

FINCH—Nest is a 5-inch cup of fine weed and grass stems, leaves, string, wool, and feathers, lined with finer material. Eggs—4 or 5, pale blue; may be finely speckled with blue or purple.

Bushtits also nest fairly high. These tiny birds build comparatively enormous nests of lichens, fine grasses, feathers, and other soft materials, all bound together with spiderwebs.

Mourning doves nest in trees, building rickety nests of coarse twigs, but they feed on the ground, so their need is for both trees and open space, preferably weedy space. They love, simply love, seeds of the California poppy and the little gray wild plant, *Eremocarpus setigerus*, called doveweed or turkey mullein.

Towhees, common in city suburbs, spend most of their time on or near the ground. Their nests, however, are in bushes, often no more than 4 feet above the ground. Meadow larks and quail are ground nesters, hence seldom seen in built-up areas. They are birds of undisturbed country acreage.

Finches, mockingbirds, and hummingbirds are middle level birds. The framework of a patio, vines on a house wall, and shrubbery close to buildings are popular with them. The materials used in nest building reflect this closeness to human habitation. Bits of string and yarn, shakings from a dustmop or lint from a clothes drier show up in nests, and you will be surprised how quickly fringe or stuffing on an old upholstered chair will fly away and become part of some finch's home.

If you live near willows or cottonwoods whose silky fluff clogs your window screens, you might, just might, be able to cool your exasperation by reminding yourself that some of that same fluffy stuff is keeping tiny nestlings warm somewhere out there.

There are ways to protect nesting birds from predation: slick metal collars tied around tree trunks will serve this purpose; so will spiny branches, placed upside down below the nest and tied tightly.

Back east nearly everyone has a story about the house wren that nested in a hat hanging on the garage wall, or in the clothespin bag. My favorite

HUMMINGBIRD—Nest 1 to 1½ inches wide, of fine stems lined with plant down. Outside may be "shingled" with lichens. Eggs—2, white, long.

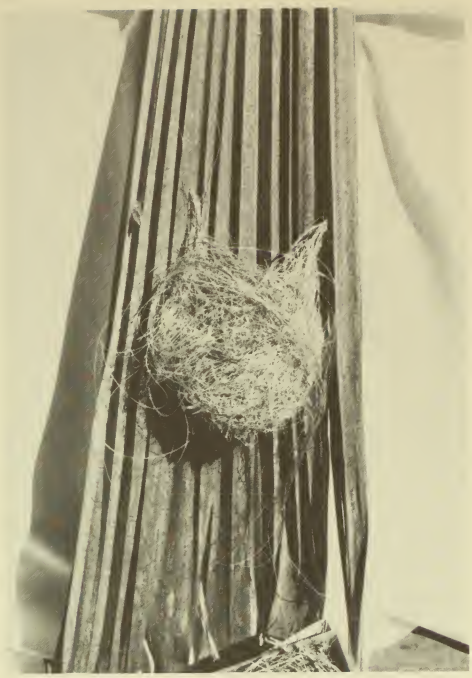
wren nested on the spring hinge at the top of a screen door. Presumably she worried whenever the door was opened but the nest stayed and she reared a family there. Another wren tried to nest in the glove compartment of the car, inadvertently left open. We couldn't put off using the car for three weeks, so had to discourage that one. Our western wrens seem to stick to canyons, there by depriving us of a lot of good bird stories, as well as of their perky charm as close neighbors. Hummingbirds, however, frequently nest within a foot or two of passing humans, so you may be able to swap hummingbird tales.

Food: The birds that willingly share our outdoor spaces with us must of course have something to eat, and the same tall trees, clinging vines and spiny shrubs, when wisely chosen and then not too sanitized, will set the table for many kinds. It is not necessary to buy food for them in a garden that produces a wide range of fruits, seeds and insects. Some birds eat green foliage also. Do you recall (sadly) those thriving lettuce and ranunculus shoots that fed the white-crowned sparrows? Those round pink buds on your apricot that suddenly disappeared?

Fortunately for the birds and for the environment in general, the custom of regular preventive spraying with insecticides seems to be on the wane. We think of certain birds as "seed-eaters" or "nectar-eaters," but even these need protein in the form of insect life, especially during their early days as nestlings. What does mama bird carry to her chicks in the nest? Not a dry hard seed, but something soft and wiggly. Warblers pick insects off bark and foliage; whizzing hummingbirds catch gnats and fruit flies on the wing; thrashers dig things to eat out of the ground.

A certain amount of informality (untidiness?) is de rigueur in the best of bird-attracting gardens. Following the standard advice to keep your garden clean of fallen leaves and fruits works to the disadvantage of insect-eating birds; towhees, thrashers, many sparrows, and other insect-eaters scratch and poke about in such litter for their spider and insect entrees.

Except in emergency insecticides are taboo in this garden. Oh, a prized plant could be spot-treated occasionally, and sudden population explosions of aphids and such can be washed away with strong sprays of plain water, but do not use systemics.



ORIOLE—Nest of interwoven fibers, about 6 inches wide, lined with fine fibers and plant down. Eggs—usually 4, very pale blue with a few fine scribbles of black.

While these are considered safe to use around pets because they leave no external residue on plants or in the air, they are potentially harmful to birds because they accumulate in fruits and seeds the birds may eat.

Admittedly, wormholes do not add to the glory of your garden, but perhaps you can overlook a few when you consider how avidly your bird friends eat caterpillars. And if you see the caterpillars eating, you can pick them off yourself. You do not need to eat them, though.

Then there are the weeds. Some obnoxious weeds provide wild food for wild birds, but I am not going to suggest that you cultivate or even tolerate ragweed, for example. On the other hand, the common weed fennel is a favorite with birds and is attractive for its own sake, with feathery, bright green foliage and midsummer clusters of yellow flowers.

If you can stand it, let the dry stalks stand until the seeds have fallen or been eaten. An alternative is to cut the stalks and tie them to the

back fence out of sight. Of course, then the birds that visit them will also be out of sight. Oh, well. . . I have seen sunflower heads nailed to the top of a fence, where they were not at all unsightly.

Goldfinches clinging to spent stalks of cosmos, thistle, or lettuce will enchant you with their acrobatics. And in case you forgot to do something about those aphids, do comfort yourself with this thought: aphids are great food for the birds that like that sort of thing. □

Something for the Birds

These birds eat ANIMAL food:		Sources:
Blackbirds	Thrashers	Shrubs and trees in variety and grass lawns harbor much small animal life; so does a natural mulch of fallen leaves. Flying and crawling insects are attracted to nectar-bearing plants and to the sap released by holes the sapsuckers drill. Water in a stream, pool or fountain is an additional lure.
Bushtits	Starlings	
Flycatchers	Swallows	
Jays	Vireos	
Mockingbirds	Warblers	
Roadrunners	Woodpeckers	
Robins	Wrens	

These birds eat FRUIT when it is available:		These plants supply it:
Jays	Tanagers	Domestic berry bushes and fruit trees Catalina cherry/Cotoneaster Elderberry/Eugenia Holly-leaved cherry Lemonade berry/Pyracantha Strawberry tree/Toyon
Mockingbirds	Thrushes	
Orioles	Waxwings	
Robins		

These birds eat SEEDS:		These plants supply them:
Dove	Pigeons	Alder/Cosmos/Fennel Sages in variety/Thistle Tree tobacco/Sycamore Sunflower/Weedy patches
Finches	Quail	
Grosbeaks	Sparrows	
Jays	Towhees	
Mockingbirds		

These birds eat NECTAR:	These plants supply it:
Hummingbirds Orioles	Aloe/Feijoa/Flowering maple Fuchsia/Honeysuckle/Lantana Monkeyflower/Penstemon Red tubular flowers/Tree tobacco Red-flowered bottlebrushes, with their long season of bloom, are perhaps the best of all.

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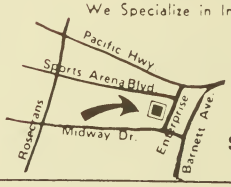

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THE HOLIDAY CACTI

by *Rick Latimer*

Rick Latimer is president of the
San Diego Cactus & Succulent Society.

THE ONE CALLED Christmas cactus is probably the most popular of all cacti grown in containers. It is a long-lived plant that can be enjoyed for decades, growing larger year by year. A few years back a specimen in a 14-inch clay pot was described in a popular magazine as being "4 feet wide and a yard long," and a member of our epiphyllum society has had one since 1927 that is about the same size.

The plant is attractive in its own way, is fairly easy to grow, takes little care and around Christmas time it sends out its own ornaments–flowers of bright purplish pink.

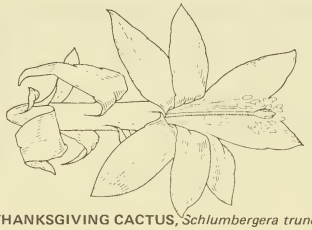
The cactus family is a most unusual one. Its members are usually thought of as desert dwellers growing in the shape of little spheres, tall cylinders, or disks. Cactus plants are cultivated throughout the world although the family is native almost exclusively to the Americas, from southwestern Canada to Patagonia. As a group the cacti are most famous for their spines and for their delicate flowers of astonishing beauty, some of which are among the largest in the world. Most cactus flowers are perfectly symmetrical. However, the blooms of the well known Christmas cactus and the similar Thanksgiving cactus are not symmetrical in that their petals do not all bend the same way.

The family is divided into three unequal subfamilies. The first consists of primitive leafy cacti that are either viny or tree-like, and the second and much larger subfamily is the Opuntioideae, which includes the well known prickly pears and chollas. The third and largest subfamily, Cereoideae, is divided into two tribes: the Cereae and the Hylocereae. The first and larger tribe includes the saguaro and the hedgehog cacti, while the smaller tribe contains mostly epiphytic jungle habitat species. The two most famous groups in this tribe are the epiphyllums and the so-called "holiday cacti."

While the one called Christmas cactus usually blooms during the Christmas holidays, it may bloom as late as Valentine's Day. This cactus derives from *Schlumbergera russelliana*, named after the Duke of Bedford (Russell family), who assembled at Woburn Abbey, England, one of the finest cactus collections of his time. This cactus was found by one of the duke's collectors, G. Gardner, while on an expedition to Brazil in 1839. Its natural habitat is in the Organ Mountains. The plant we all grow is a hybrid of this species and *S. truncata* and, according to our own Reid Moran, curator of botany in the San Diego Natural History Museum, it is called *S.* x *bridgesii* although there is a campaign going on in Europe to call it *S.* x *buckleyi*.

In recent years, a similar plant known in this country as Thanksgiving cactus has increased in popularity due to the fact that its blooming season corresponds to that holiday. It is readily available in a variety of flower colors–white to shrimp to orange to red to purple. This plant is easily distinguished from the Christmas cactus since its stems have pointed lobes while the Christmas cactus stems have rounded lobes. These sharp lobes have given Thanksgiving cactus the alternate names of crab claw cactus or even lobster cactus. Usually plants in this group are more erect in habit and stay more compact than the Christmas cactus. Some well known varieties are 'White Christmas' (white, or pinkish some years), 'Lavender Doll,' 'Kris Kringle' (red), and 'Purple Pyramid.'

The Thanksgiving cactus derives from *Schlumbergera truncata* (formerly *Zygocactus*), said to be



THANKSGIVING CACTUS, *Schlumbergera truncata*

widespread in the Organ Mountains and the Serra do Mar in the state of Rio de Janeiro. The genus name honors the Frenchman Frederic Schlumberger, who, in the 1950's, owned a large cactus collection at Chateau-des-Anthieux in Normandy. I have found that the true *S. truncata* has carmine flowers with a purple cast. The plants that have sold locally under this name have had shrimp-pink to orange-colored flowers.

The third holiday to be graced by a closely related group of plants is, of course, Easter. The Easter cactus blooms are symmetrical, unlike the flowers of the holiday cacti mentioned above, but their stems are similar; they resemble those of Christmas cactus in having rounded lobes, but are much flatter and have tiny hairs that look like aerial roots, on the tips.

There are actually two types of Easter cacti; 'Crimson Giant' is probably the most common of the large-flowered ones, which are hybrids of *Rhipsalidopsis gaertneri* (formerly *Schlumbergera*), and the small-flowered ones with smaller stems having a bluish cast are hybrids of *R. rosea*. Two popular hybrids are 'China Pink' and 'Shocking Pink.' The species from which the Easter cacti derive are also native to southern Brazil—the red-flowered *R. gaertneri* from the state of Santa Catharina, *R. rosea* from the state of Parana.

The best is yet to come! A new species found in the Serra do Mar has flowers much larger and floppier. Named in honor of the Countess Beatrix Orssich of Teresopolis, Brazil, *S. orssichiana* flowers are mainly white with magenta edges. There are also two other species, *Schlumbergera opuntioides* and *S. obtusangula*, that may be available soon if they prove easy to grow. Their stems look like little opuntia (prickly pear) pads but have no glochids (barbed bristles). Their native habitat is along the borders of the states of Sao Paulo, Rio de Janeiro, and Minas Geraes. They are said to be late spring bloomers, so they probably will not get a holiday of their own. Oh, and the blooming season of *S. orssichiana* is said to be February and August!

Some things to look forward to: new hybrids of the old varieties and perhaps even a yellow one some day, and new hybrids of *S. orssichiana* that are really large!

In the meantime continue to grow and enjoy the beautiful kinds already available. If you do not have any of these gems, there is no better time to collect one or more than right now. □

Schlumbergera orssichiana

REFERENCES:

Curt Backeberg, *Cactus Lexicon*

Wilhelm Barthlott, *Cacti*

W. Barthlott & A. J. S. McMillan, "A New Species of Schlumbergera", *Cactus and Succulent Society of America Journal* **(50:1)**

Ladislaus Cutak, *Cactus Guide*

Scott E. Haselton, *Epiphyllum Handbook*

F. R. McQuown, *Fine-Flowered Cacti*

Larry W. Mitich, "The World of A. Blanc", *Cactus and Succulent Society of America Journal* **(45:6)**

CULTURE

In general, all the holiday cacti take essentially the same care as epiphyllums* although they can take a little more shade and water. They grow best in semi-shade in a compost containing leaf mold; they like humidity—should never be allowed to dry out completely yet will rot if overwatered. They will drop their buds if their environment changes too rapidly or if moved when in full bud.

About six weeks prior to blooming season fertilize the first time and every two weeks after that. A fertilizer that makes oxygen more available to the root system, or a low nitrogen fertilizer, 0-10-10, may be used at half strength. R.L.

**California Garden*, May-June 1981

Toyon

Text and drawing by *Anne Galloway*

Photo by *Russell MacFall*

TOYON IS CALIFORNIA's own winter holiday plant. It is the large handsome shrub sometimes called Christmas berry or California holly, for the obvious reason that in November and December a healthy specimen produces masses of bright red holly-like berries, backed by deep green leaves.

Very much a native Californian, the toyon is found in the coastal mountains from Humboldt county to northern Baja California, and in the foothills of the Sierra Nevada. A variety with larger flowers and fruits grows on Catalina and San Clemente islands.

When the Spaniards arrived in the Monterey Bay region they asked the name of this splendid native and were told *tyotyoni* in the local Indian language. This name, difficult for them to pronounce, was soon altered to toyon.

In other Indian languages it has other names. Near San Diego it is called hosík, with accent on the second syllable. The scientific name is *Heteromeles arbutifolia*, meaning "different apple with leaves like arbutus."

Toyon is a member of the rose family, related to apple, almond, rose, and bridal wreath. A full grown plant can be a large bush over 6 feet high or, with pruning, a small tree up to 25 feet. New growth has reddish bark which turns charcoal gray with age. The leaves are not too holly-like, being long, rather narrow and not very prickly. Toyon blooms in June or July and the whitish flowers are followed by slowly maturing berries. Most berries are bright red, but an occasional plant has yellow berries.

People have always found the toyon beautiful and useful, so it is good to know its characteristics, where it lives, how to grow it and how to use it.

A toyon likes nothing better than the side of a canyon down which water pours in the rainy season. If the water is not running briskly over, under, around and through its root system it prefers no water at all. Never ask a toyon to stand for days in a puddle of water.

Our toyon, on the canyon slope back of the house, is never watered but is sustained entirely by winter rains. I think it is about fifty years old, so it must have an imposing root system down there. At least 25 feet high, it has been pruned over the years and now has three sturdy trunks.

In the spring little toyon plants pop up everywhere around it, but these seedlings are difficult to transplant for they quickly send down long tap roots. A seedling 1 inch high will have a 4-inch root. So if you are going to grow your own toyon from seed, plant seeds in large pots and set the seedlings in their permanent places as soon as possible. An even better idea is to plant seeds where you want them to grow.

The toyon does not like really cold weather, as is indicated by its natural range in coastal canyons and lower mountain slopes. However, it can survive hot, dry summers and even fires; it will sprout from

the stump after a fire.

Toyon's enemies are few. I notice very few insects on ours and it is not a plant that larger animals like to chew on. After a fire deer and goats will browse on the fresh shoots, but they will abandon the mature growth, which is tough and leathery, for more tender leaves and twigs. Fire, deer, and goats are not common problems in the home garden. I suppose that larger animals such as grizzly bears once ate the berries. These days the only large animal which may be eating the berries is man, for those bright red berries are edible.

TOYON—Blooms early summer and sometimes again in early fall. Individual flowers shaped like miniature roses, their relatives.

The berries can be eaten raw, but a brief cooking improves their flavor. Wash, steam them dry in a skillet, then toast gently, cool, and eat like raisins. Or simply scald them with hot water, cool, and drain. On a holiday table the berries are festive and after the guests have gone you can eat the decorations.

In the old days, dried seeds were powdered and used to spice acorn meal. Without seasoning, the acorn dish is as bland as oatmeal. Medicinal uses too have been recorded. Water in which the bark was boiled has been used as a tea for aches and pains and as a wash for infected wounds.

The red berries look like they ought to yield a bright red dye for woolen yarns, but they don't. The flowers will produce a good tawny beige and the bark of stump sprouts and other fresh growth will yield a strong reddish brown or rust color. I used alum-mordanted wool in my experiments. The beige from the flowers and the rust color from the bark naturally complement each other perfectly.

If you do not cut the berries for decoration, or eat them, or boil them in your own stubborn hope of getting that red dye, the crop will not be wasted. Some time soon, when the berries are at their brightest, flocks of cedar waxwings and robins will visit your bush and clean them all away in a matter of hours. The birds will go, and then your toyon will stand there, looking green and stately, until it blooms again next summer. □

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CONTAINER CULTURE

Bill Nelson, professional optometrist and enthusiastic nurseryman, is continuing his extensive research on plants that are suited to or will adapt to our Mediterranean climate.

by *William L. Nelson*

GROWING PLANTS IN containers has many benefits, but to be successful, several aspects must be considered. A common mistake is the use of topsoil as a growth medium. Topsoil should NOT be used for these reasons:

- The container prevents adequate drainage of water from topsoil. Even with several drain holes the normal water column that functions well when plants are grown in the ground is eliminated by the container.
- Aeration of the growing medium is vital to plant growth. Since water is held too long in topsoil, the plant suffers from this lack of air.
- Even though some oxygen is restored to the soil as it dries, it tends to shrink and pull away from the container sides, causing poor penetration of subsequent watering. The plant becomes starved for water and buildup of damaging salts is likely.

RECOMMENDED MIX

The ideal growing medium will vary with the plant variety, water quality and many other factors. However, the following formulation gives an excellent mix for most container growing:

- 80% Pine and Fir Bark—well composted, particle size of ¼ inch or less.
- 20% Fine Sand—such as washed plaster sand. 0-5% should be 50 microns or less and 100% should pass a #18 sieve (about 1 mm).
- To each cubic yard of mix add:

  3½ lbs. single superphosphate
  3 lbs. dolomitic limestone
  2 lbs. calcium carbonate flours
  ½ to 1 lb. ferrous sulfate
  ¼ lb. manganese sulfate
  1 oz. copper sulphate
  1 oz. zinc sulphate

  If the bark or sawdust is raw (not nitrolized) add 2 lbs. ParX3100 or 2 lbs. urea formaldehyde.

  Redwood or cedar sawdust and/or shavings can be used in place of the pine or fir bark,

RIGHT: Montezuma Pine, *Pinus montezumae*, eye-catching tree that can be kept in a container for six or eight years. Its 12- to 24-inch needles, in clusters of five, have been used by Indians of Mexico to weave baskets known to last fifty years.

BELOW: California Big Tree, *Sequoiadendron giganteum*, poor in a container, thriving only two or three years. It wants to grow big and finds life in a can frustrating; after all, when it lives to grow up it becomes that most massive tree in the world. Forest Service researchers have found this to be the most smog-resistant of all trees.

Photo by Larry Pautler

Photo by Larry Pautler

but should be well composted because of potential toxicity. Bark is preferable because of the nutrients and trace elements it contains. In general, other types of sawdust should be avoided because of their rapid rate of decomposition.

MIX FOR LARGE CONTAINERS

If the container is over 25 gallons in size (such as a half whiskey barrel) an addition of 20 percent topsoil can be made with no adverse effect.

IRRIGATION & SALINITY

A fast draining mix like the above will need watering at least twice a week. During hot weather daily irrigation may be necessary. To prevent salinity problems, enough water should be applied so that a small amount comes out the drain holes.

STERILIZATION

Fungus organisms that cause root disease and crown rot must be eliminated in container culture. On a commercial scale fumigants like methyl bromide and chloropicrin (tear gas) are used. Due to their toxic nature, permits are required to assure safe handling.

The homeowner can obtain the same effect by baking the container mix at 250° F. for 30 minutes. Another idea is to use a solar oven design to save energy and to avoid filling your kitchen with the terrible stench of cooking fungi. An inexpensive solar cooker or the plans for building your own are available.

FERTILIZATION

The major elements—nitrogen, phosphorus, and potassium can be supplied in many different forms and are a matter of personal choice. Recent research with secondary and micronutrients show great promise in container use and in propagation. Two products incorporating these nutrients should be readily available soon.

PH

This term (pH) stands for the hydrogen ion concentration. It is the measurement of the acid/base condition, and a scale of 0 to 14 is used. A reading of 7 is neutral while less than 7 is acidic and from 7 to

14 is basic (alkaline). Most plants grow best when the pH of the container is slightly on the acid side. 5.8 to 6.8 is considered the ideal range.

Readings can be taken easily with inexpensive test papers. Very high or low findings will explain chlorosis and other problems. Amendments to the mix are simple to use in adjusting the pH.

TEMPERATURE

The sunny side of a dark colored container can become dangerously hot at mid-day. The roots in that area may be damaged by the heat unless some insulation is present. Wood makes an ideal heat barrier, but aluminum foil or white paint is also effective.

The root mass in a container is also more vulnerable to freezing. Below 20° F., protection should be considered.

SANITATION

Hands, tools and used containers are the most common spreaders of plant diseases. A solution of 10 parts water to 1 part household bleach is very effective as a fungus, virus, and bacteria killer. After scrubbing away any debris and rinsing with clear water, a 30-minute soak in the solution is recommended. It can also be used to wash down work surfaces, stakes, and areas where containers are placed. Here again, the solar oven could be a time and money saver.

Fiberglass window screen should be used to cover the drain holes of a container before filling. This will keep out the disease-carrying and root-eating pests.

TRANSPLANTING

When transplanted into the landscape, the surrounding soil pulls moisture from the root ball like a magnet. Therefore the plant must have water applied directly to the root mass two or three times per week for the first 6 weeks or so. After that time, the roots will have penetrated the native soil and watering can be reduced. Next to poor drainage, this is the most common cause for plant loss.

SMALL CONTAINERS

If a seedling or rooted cutting is kept in a restricted area too long, the root system becomes permanently impaired. There is really no remedy for this problem. As the root system increases in size, it strangulates itself. This can be avoided by transplanting at an early stage or by using bottomless containers placed on wire mesh. In this way the longer roots become "air pruned" and dense branching results. Such a root system is highly desirable.

REFERENCES

Matkin, O.A., et al, 1972, *The U.C. System of Producing Healthy, Container-Grown Plants,* University of California.

Whitcomb, Carl E., 1978, *Understanding the container System*, 360 pages, Hall, Oklahoma State University, Stillwater.

Gartner, John B., November 1977, *Soil Composition Determines Handling Ease (American Nurseryman).*

Spomer, L. Art, May 1978, *The Water Relations of Transplanted Soil (American Nurseryman).*

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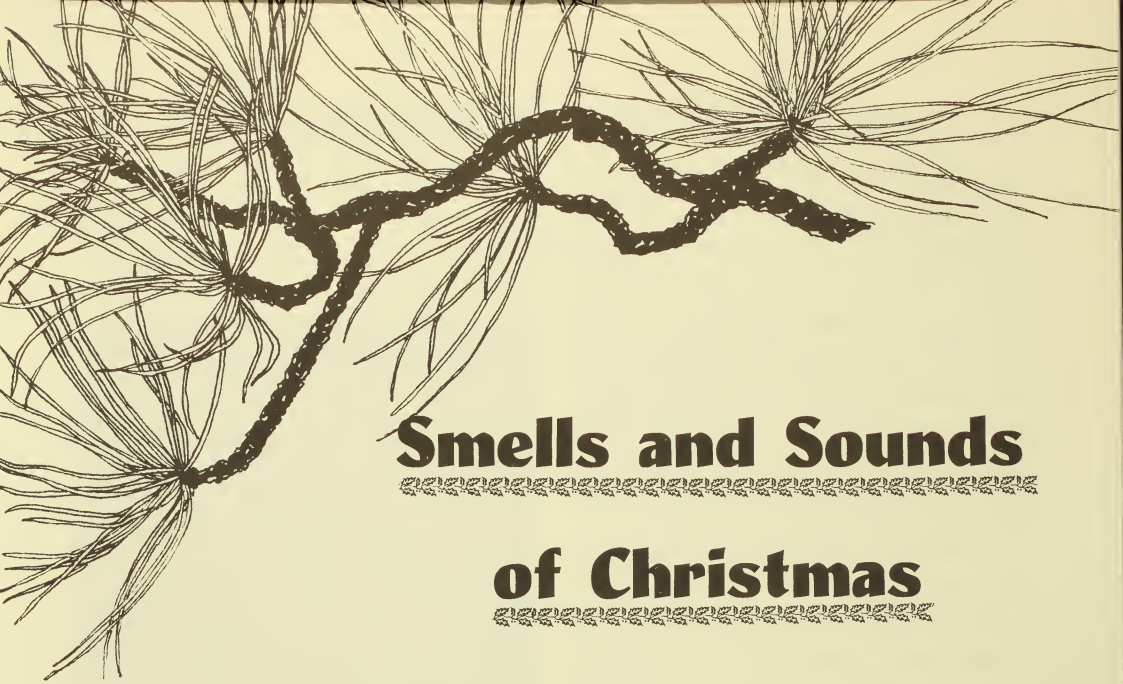


Smells and Sounds of Christmas

Drawing by *Kristine Erickson*

by *Rosalie Garcia*

OUR WINTER FESTIVAL of Christmas, now starting early in the month of December each year, has something for everyone. What I like is the smells—spicy, woodsy, fruity, roasty, sage-y, pickle-y, peachy. Also firm jellied fruit cakes, seed cakes, thick and thin custards, mince pies frothy with meringue and whipped cream. What I see is often revolting—gaudy tinsel, sparkling baubles and lights festooned over our streets and in our stores, with canned music blaring from speakers in shopping centers day and night.

I have never lived where there was snow at Christmas or heard the tinkle of sleigh bells, but it must have been wonderful to hear the delicate music in the crisp air and to see the pure white blanket of snow covering all the bareness, dirt, and ugliness.

Next to the smells of Christmas, I like the sound of great music produced over the years and preserved by the churches and musical organizations. The music departments of the many colleges in our area offer a number of performances, mostly free, ranging from the great choral masterpieces to symphonies and masses. Many churches have a midnight service on Christmas Eve where the pageantry and drama of the beginning of the Christian religion is portrayed in music. Candles flicker and evergreen boughs, mostly of rosemary, bay, and fragrant conifers, entwined in the chancel and pews, engulf the churches in an aromatic atmosphere that attracts many who never go near a church at any other time. Children are early introduced to this pageantry and fine music by taking part in the chorus and processions. Today girls are even invading the traditional boys' choirs!

Some group always presents Handel's "Messiah" with orchestra and organ. It is not Christmas to me until I hear a good tenor soar forth on "Comfort Ye, Comfort Ye, My People," or a clear high soprano assures me "I Know My Redeemer Liveth," and the choir thunders forth the "Hallelujah Chorus." It gives a comforting continuity to life in a day when so much is rootless and changing.

With the fine recordings we have now, if there is a quiet moment in the festivities, one may listen to recordings of music that has been preserved from the Middle Ages and onward, and to the plaintive minor French carols, the chants, madrigals,

and fine symphonic music of the 17th and 18th centuries, and even some modern works.

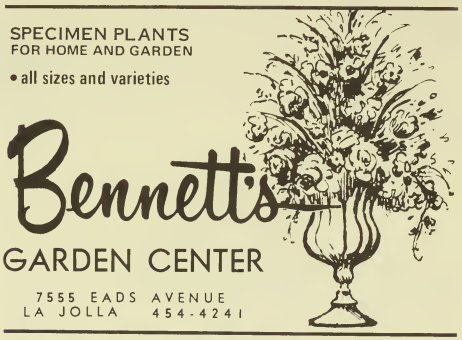
In the days of high-ceilinged, stone- or dirt-floored dwellings with only a fireplace for heating, it is understandable that houses were shut tight for the cold weather but the forests were near and plenty of grasses, conifers, and evergreens were available to freshen the atmosphere and perfume the living quarters. Branches were cut and strewn about the floors. When these were dry they were swept up, and renewed for special occasions like Christmas. Any plant that smelled good was called an herb and some were even classified as "strewing herbs"–among these the foremost were: rosemary, sweet bay, pine, cedar, hemlock, spruce and, in warmer climates, lemon verbena, mint, oregano, sassafras, citrus, and liquidambar (sweet gum).

Even today some people decorate their homes with boughs of evergreens, but to city people these are not easily available and the florists either do not have them or they seem too expensive. So we settle for a few wreaths of arbor vitae, cedar, or holly, or we get some potted plants–a favorite being the poinsettia in colors ranging from white to blazing red.

I can still recall the smells and sounds of Christmas at parties given by Miss Sallie, who loved parties and entertaining in her cottage in the little southern town where I went to high school. Her small house would not accommodate more than 20 people, so she would give a series of parties during the Christmas holidays. The one I was invited to was for her Sunday School class. The house was decorated with pine and cedar boughs over the windows and fireplace. All her pretty china, glass, and silver were out. At one end of the dining table stood a glass bowl of fruit punch, and on the other end a china bowl decorated with big red roses. It was full of hot mulled cider with baked apples floating on top. Did that smell good! There were plates of seed cookies–poppy, sesame, and cardamom (which I thought terrible); slabs of jelly-smooth fruit cake; layered sandwiches of tuna, cheeses, and eggs. There were pots of scalding hot chocolate, nuts, boiled custard with plenty of whipped cream; bunches of waxy raisins with seeds (I can no longer find these in the market).

Miss Sallie and her mother knew her guests and kept filling our plates until even we had to refuse. We had played guessing games and charades and were ready to have our gifts when Santa Claus appeared and distributed apples and oranges from his sack and handed out gifts from the tree. By 10 p.m. we had unmasked Santa, who turned out to be Miss Sallie's boss whom we all knew, but he had concealed his identity so well we did not guess. He was pleased over that. Miss Sallie must have been tired, for she worked six days a week in the town's main store from 8 a.m. to 6 p.m. during the busiest season, but she kept on the go and never seemed to cease enjoying her guests.

We sang "Hark the Herald Angels Sing" and "Silent Night" before going our ways in the crisp starry night. □



PELARGONIUMS IN HANGING BASKETS

Photos by *San Diego Geranium Society*

by *Carol Roller*

'CROCODILE', variety of *Pelargonium peltatum*

CULTIVATED VARIETIES OF *Pelargonium peltatum* are the members of the geranium family most commonly used in hanging baskets. These bright-flowered trailing plants, seen frequently on fences and embankments, are usually called ivy-leaved geraniums, or simply ivy geraniums. Growing them in containers provides better control of both water and fertilizer than is possible when the plants are in the ground. During prolonged rain, a heat wave, or high wind, a plant in a container can be taken down and put into a sheltered place. Growing is less tiring when the plant is within easy reach. A more subtle advantage is that hanging the plant lets it grow the way it can show its best attributes—cascading over the edge of the pot, floating in the breeze, yet dangling close enough to touch.

Although the quickest way to get a hanging basket specimen is to buy an established plant, you may want to assemble your own. Ivy-leaved pelargoniums are most obliging if you want to take cuttings. Except for an occasional dead end each stem has a growing tip from which new leaves continue to develop. To make cuttings, cut cleanly just below a node, remove flowers, buds, and any leaves and stipules which will be below the soil when the cutting is put in to root. A 4-inch segment is large enough. The cuttings should be very well rooted before transplanting into a basket. Leave what seems to be more than enough watering space. The mature plant will have a heavy root system which pushes toward the top of the container.

Use a soil or soilless mix which drains well and is nearly neutral in pH. Ordinary commercial potting mixes can be lightened by adding perlite. All pelargoniums grow best when they are alternately wet and dry. When watering, water thoroughly, so that the entire soil mass becomes saturated. The excess water should be allowed to drain away.

To keep the plant growing at its best, feed it with a balanced fertilizer dissolved in water, preferably at a rate which is less than the prescribed full strength. Use this solution every fourth or fifth watering. If this amount is not enough for good growth, increase it by small increments. If the plant becomes very dry at a time when the next fertilizer application is due, water only with plain water. After the plant's stress has been reduced by the uptake of moisture, but before the plant dries out again, apply the fertilizer solution.

All the ivy-leaved varieties need to be pruned regularly to make the plants dense and symmetrical. This pruning should start as soon as the young plants reach the edge of the basket. There are several options for pruning. One method is to prune all stems to the edge of the container at a given time. This cutting back can be done nearly any time of the year; however, if you live in a cold-weather area, you may want to prune early in the fall or wait until winter is over. The full pruning can be utilized to prime a plant for maximum flower production at a specific time. In four to eight weeks after pruning,

'GAY BABY', variety of *Pelargonium peltatum*

new growth will be sufficiently developed to tip pinch. Cut away at least an inch of each stem. This promotes the development of additional stems, consequently more flowers. From the time of the last pinching, allow three months for renewal of growth and the production of flowers.

Another method of pruning is to cut back one out of every three stems. The following month, prune half of the untrimmed stems, so that by the third month all stems have been cut back. Tip pinch whenever the new growth is advanced enough to do so. By using this rotation system, the plant will remain more presentable and continue to flower most of the time.

Whatever pruning and pinching schedules are used, each cut should be made with a sharp knife, cutting cleanly just beyond a node. This means that the internode (the bare part of the stem between the leaves) is removed from the plant. New growth will develop from a vegetative bud at the node. Any stub of stem left on the plant will die back to the point of new growth. Sometimes internode stubs become sites of infection, so it is wise to cut back to the node.

Ivy-leaved varieties are the most trouble-free group within the genus *Pelargonium*. A few of the varieties are prone to spider mites. One disfiguring affliction called oedema sometimes appears. This exhibits itself as a corkiness on the stem and a pimpled appearance on the undersides of the leaves. When the plant has taken up more moisture than it can use, as it may during humid weather or after a heavy pruning, the cells become distended and burst. There is no pathogen or insect involved and the flowers are not affected.

To keep the plant looking its best, it should be groomed at every opportunity. Remove the dry leaves, old bloom stalks, any branches or stubs which are not growing, and the debris on top of the soil.

The plant will need good light and air circulation. Poor light will promote long, soft growth. Too much sun will burn the leaves. The proper amount of light depends on the variety and the area in which it is being grown. Sometimes a plant will be at its best if it winters in one location and summers in another.

For years, four varieties of *Pelargonium peltatum* have been the only selections sold in neighborhood nurseries; a white, a pink, a red, and a fourth which is variously labeled either pink or rose. These are 'Mrs. Banks,' 'Comtesse de Grey,' 'Mexican Beauty' ('Red Velvet'), and 'Charles Turner.' They are reliable plants which can be seen all over southern California, but they are only the tip of the iceberg when it comes to varieties. Recently a wider selection of ivy-leaved varieties has become more generally available. Here are 12 of my favorites:

'Beauty of Eastbourne'–very double cerise rosette; a moderate-sized plant of English origin.

'BRIDESMAID', variety of *Pelargonium peltatum*

'L'ELEGANTE', variety of *Pelargonium peltatum*

'Bridesmaid' (Schmidt 1942)—large double pale pink with a hint of lavender; darker feathering in the upper petals; a large plant.

'Burgundy Beauty' (Rager 1978)—large semi-double, very dark red, almost black; a large, vigorous plant. A similar variety called 'Harvard' is also available.

'Cornell'—semi-double blue violet with darker marks in the upper petals; a moderate grower, introduced in the late 1970's.

'Crocodile'—single bright rose; medium-sized plant with reticulated (prominently veined) leaves, cream or yellow on green; originated in Australia.

'Galilee'—bright pink double with a symmetrical shape; a moderate grower; an old variety.

'Gay Baby'—small, semi-double white flowers with a lavender cast; a miniature plant with close-ranked, overlapping leaves; originated in Australia. Very large, pendulous plants should be set on a surface which will support the cascading parts of the plant. The slender stems cannot bear the weight of the heavy growth indefinitely and the plant will tear apart.

'L'Elegante'—silvery white to pale lavender single; white-bordered, gray-green, angular leaves which turn pink when the plant has become too cold, hot, or dry; an old variety which has been called by several different names. 'L'Elegante' reverts easily to a green-leaved form much like the South African parent species, *Pelargonium peltatum*.

'La France'—large double lavender; medium-sized plant; an old European variety.

'Malibu'—very large semi-double cerise purple; a robust-growing American variety.

'Rouletta'—semi-double flower, red-edged petals with white centers; another form of the Mrs. Banks-Comtesse de Grey-Mexican Beauty group, often reverts to other color forms; long, trailing stems need considerable pruning; brought from Mexico in the 1960's.

'Yale'—very bright semi-double companion to 'Cornell'; also a medium-sized plant.

Each of these is easy to propagate, has attractive foliage, lots of flowers, and is generally dependable and trouble-free. Most of them are now being grown in great numbers for the general nursery trade. All twelve are available from the mail order nurseries which specialize in geraniums. There are many other varieties. Some are just as good as the dozen listed above, but others have faults such as rooting poorly, failure to flower, or weak growth. These are not commercially grown, but may be found in private collections.

In addition to the traditional ivy-leaved pelargoniums, there are also some ivy-zonal crosses which do well in baskets because they cascade like the ivy-leaved parent. Others prefer to grow horizontally. These can be used in baskets if the stems are weighted to make them drape. Flowers of the ivy-zonals are glorious. The plants will be recognizable because the leaves are not peltate but resemble zonal pelargoniums.

Plants of all varieties will be at their prime for only a couple of years. Sometimes the lifetime can be extended by root pruning and repotting with fresh soil or repotting into a large container. When pruning, take a few cuttings to be used to replace the old plant. By so doing, you enjoy a new generation of hanging baskets. □

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SOWING WILDFLOWER SEEDS

WE USED TO say or write, glibly, "Sow your wildflower seeds in late October, at the beginning of the rainy season." Oldtimers hereabouts can remember rainy autumns and hills turned green by Thanksgiving, but in recent years our rainfall has been later and lighter. The first real soaker may come in December or as late as January. Wild seeds out there on the hills then get the message and the hills are green before you know it.

In the garden wildflower seeds can be planted in November, December and January, and successfully germinated if certain facts are kept in mind:

• Soil must be moist—soak thoroughly several days before sowing seed.

• Seeds must be in contact with mineral soil—scattered on mulch or grass they do not have a chance.

• These tiny, light seeds are hard to spread evenly; mixed with dry sand they can be sowed thinly in rows, or scattered more effectively.

Sow or scatter seed, cover thinly with soil or sand, and tamp lightly with rake. Ideally they should be planted just before a rain, or between showers, if you and your weather man can get the act together. Otherwise, if weather continues hot and dry you must provide the rain and some shade if possible. Shade-cloth or screen is fine, but even something as primitive as an old sheet tied to stakes will shade a small seedbed.

Remember that mourning doves and other birds like little seeds—another reason for providing some sort of screen if possible.

Happy poppy growing! H.V.C.

Merry Christmas

—WITH LOVE

by *Skipper Cope*

Useful gadgets have as much appeal to gardeners as they do to cooks. Gardening gifts may not be quite as easy to locate but, with a little ingenuity, you can find useful and intriguing ones in every price range.

Those lovely brass outdoor faucets are always at the top of my list. The ones shaped like a quail, a turtle, or a goose. I have never given or received one because they are so expensive, but they would make a beautiful gift! So, I keep them on the list.

Next on my list is one I really do give—*California Garden* magazine. You enjoy this magazine yourself, why not spread the joy around by sending subscriptions to other friends of flowers?

There are so many attractive wind chimes and bells available you could develop a dreadful case of frustration just trying to make a choice.

A porcelain flower ring is lovely for pansies or other small flowers. A nice fat candle in the center adds a charming finishing touch.

How about those packets of "Flowers from Hawaii"? They are fun to start indoors.

A carpenter's apron is useful. The pockets are large enough to hold garden tools. You could personalize it with initials or make one from ticking.

Scissors that hold a flower when it is cut are very convenient too, or a plant atomizer that is practical for both gardeners and arrangers.

I have seen some darling bird houses for that bird lover on your list.

Baskets for potted plants are abundant. All sorts of styles and colors.*

If your budget is slim you can stretch it a bit by making or decorating the gifts yourself. In fact, some of the do-it-yourself gifts may be the most appreciated. If you like to wield a paint brush, why not paint a watering can, add a few bright flowers and the recipient's name? So you can't letter? Do them in an amusing haphazard manner and no one will know the difference. Paint and names are a clever idea for a nice deep pail to receive flowers as they are cut.

A colorful wire clothes hanger with a couple of clamp clothespins to hold a pair of wet garden gloves is both convenient and fun.

Let your imagination run riot and before you know it you will dream up ideas that will far surpass these little suggestions! □

**California Garden*, Nov-Dec 1979

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Christmas Holy Season

by Adrienne Green

IN OUR CHRISTIAN homes we enjoy using representations of the Madonna and Child throughout the holiday season. Arrangements shown have superior lasting quality for December days. Plant materials are in water—in cup holders concealed behind the figures.

Branches of *Calothamnus validus* continue the oval suggested by the wood-carved Madonna who fondly gazes at the Child. Variegated holly repeats the rhythm and adds interest in texture and color.

The blue ceramic Madonna and Child comes from Holland. Shiny aspidistra leaves surround the figure with glossy green clippings of umbrella pine, *Sciadopitys verticillata*, providing attractive contrast in form. Remaining fresh for weeks the aspidistra leaves finally dry a golden brown and may be used in everlasting arrangements.

NOW IS THE TIME

A cultural calendar of care from our affiliates—

compiled by **Penny Bunker**

BEGONIAS MARGARET LEE

Now is the time

- to be vigilant for insects; spray for mealybugs and other pests.
- to spray for mildew control.
- to keep planting medium moist, but NOT wet. (Weather can be dry during November and December.)
- to give a light feeding several times a month—will help the plants withstand any adverse conditions a little better.
- to protect the potted plants from heavy rains—can wash out soil and expose the roots.
- to clean your plants of all dead leaves and wood. Place a top dressing of your favorite mulch around them.

BONSAI DR. HERBERT MARKOWITZ

Now is the time

- to consider grafting conifers.
- to cut down on watering; deciduous trees require just enough to keep them from drying out. Do not overwater. Do not water trees in freezing areas.
- to keep deciduous trees protected from sudden changes in temperatures.
- to prune black pines by cutting the candles about half length.
- to not transplant any trees.

BROMELIADS LINDA PRELL

Now is the time

- to let your bromeliads rest.
- to stop fertilizing your plants so they may harden off for winter.
- to hold off watering during cold, damp weather.
- to leave offshoots on the mother plant—they fare better in winter this way.
- to bait for snails and slugs that thrive during the rainy season.

CACTI & SUCCULENTS RICHARD LATIMER

Now is the time

- to protect frost-tender succulents; such as jungle cacti, Caribbean cacti, East African succulents, and the tender Madagascar succulents. Keep on the dry side as they can better tolerate the cold.
- to let the rains care for those plants out in the ground or those pots out in the open that are capable of withstanding that much moisture whether they are active or not.
- to remember to shelter those succulents that are intolerant of large amounts of rain, or simply any moisture at this time of year.
- to water, if no rain, those plants that need it.
- to be vigilant for snails and slugs, scale or mealybugs.
- to make a living wreath.
- to know that haworthias drop their roots this time of year.

CALIFORNIA NATIVE PLANTS HELEN CHAMLEE

Now is the time

- to soak a sunny space, rough it up some, and sow your wildflower seeds.
- to search out some nurseries that feature native plants.
- to set out all kinds of native shrubs and trees.
- to learn the names of three wild shrubs, trees, or flowers that are new to you.
- to walk across the hills that burned last spring, marveling at the number and variety of seedlings that are popping up.

CAMELLIAS SAN DIEGO CAMELLIA SOCIETY

Now is the time

- to feed your camellias lightly with a 2-10-10 fertilizer for better and larger blooms.
- to apply gibberellic acid to a few buds once a week. (Essential if you intend to enter the show in the spring.)
- to groom and disbud for spring shows.
- to maintain high humidity—do not allow to dry out.
- to start early grafts in December.

DAHLIAS ABE JANZEN

Now is the time

- to cut, to about twelve inches from the ground, old stalks that have died and browned.
- to allow clumps to dry for a few hours before placing in storage.
- to allow plants to go dormant by withholding water and fertilizer.
- to store tubers in vermiculite or other medium in a protected place.
- to leave one "eye" in each division if dividing tubers before storage. Be sure to apply soil sulphur to any cuts.
- to tag each tuber for identification as you tuck away.

EPIPHYLLUMS (Orchid Cacti) FRANK GRANATOWSKI

Now is the time

- to withhold fertilizers, especially those containing nitrogen (allows the plants to become semi-dormant).
- to protect plants from exposure to the elements—frost, hail, and strong winds can do irreparable damage. Overexposure to harsh winter sunlight can be as detrimental as exposure to the summer sun.
- to transplant to large containers those plants that are not expected to produce blooms next spring.
- to check the apples (seed pods). Ripened apples may be picked and the seeds planted. However, do not be in a hurry to do it; germination of the seeds will be vastly improved when the apple has fully matured.
- to take advantage of beneficial winter rain even prolonged winter rains will have no harmful effect on epiphyllums that are planted in good porous soil, and they tend to leach the soil of accumulated salts. Collect rain water for future use.
- to maintain good grooming of your plants. Prune out dead, unproductive, and unsightly branches. Keep containers free of debris, and last but not least bait for slugs and snails. A few granules of Slugetta has proved very effective and leaves very little unsightly residue.

FERNS RAY SODOMKA

Now is the time

- to check containers to ensure planting mix has not completely broken down.
- to clean out weeds, oxalis, and any debris from pots.
- to be alert for insects—slugs and snails are ever active.
- to water if it does not rain—check for any plants not reached by rain.
- to fertilize with a more diluted mixture once more before rest period—before the first of December.
- to be alert for dry hot winds; do not allow plants to dry out, keep them moist.
- to plant spore; keep in a warm area.

FUCHSIAS WILLIAM SELBY

Now is the time

- to prune your plants heavily if living in a frost free area.
- to experiment with planting cuttings from hard wood.
- to water and feed plants regularly; even in cool weather the plants still need some food and water.
- to protect from heavy rains if they arrive.
- to clean up the plants—remove dead leaves and other debris from pots, baskets, and around plants in the ground.
- to watch for insects in warmer areas.
- to protect plants from frost and cold winds in areas where required.

GERANIUMS CAROL ROLLER

Now is the time

- to water less often. Each watering should moisten the entire soil ball and the excess should escape through drainage holes.
- to continue feeding a balanced fertilizer dissolved in water; using it at half recommended strength every 4th or 5th watering, or as often as needed to keep the plants growing well.
- to prune any plants which have not been cut back. Leave some green leaves on each stem being cut back. Prune again in 4 to 6 weeks to bring lanky plants into shape.
- to make cuttings from the prunings. Shelter the cuttings from extreme weather conditions.
- to tip pinch plants that were pruned early in the fall.
- to continue pest and disease control, using products according to the manufacturers' directions.
- to give temporary shelter from freezing if temperatures go below 28° F.
- to rotate plants regularly for the symmetrical shape.

GESNERIADS (African Violet is one of many) MIKE LUDWIG

Now is the time

- to watch for any late dry hot winds and keep plants watered.
- to prepare all plants for winter dormancy. Those with rhizomes or tubers can be uprooted and stored in small baggies.
- to place columneas, nematanthus, and streptocarpus outside if in protected area; protect especially from frost. Keep new growth arrested to prevent frost damage.
- to order next year's plants and supplies to have them on hand in the spring. Will be getting the best plants as they are sent on a first come, first served bases.

IRIS SAN DIEGO–IMPERIAL COUNTIES IRIS SOCIETY

Now is the time

- to make final plantings of bearded type, spurias, Louisianas, and Siberians.
- to clean beds of dead leaves and weeds; aphids winter-over in debris filled areas.
- to spray for aphids or give a light feeding of a systemic fertilizer which gets rid of all sucking plant pests.
- to feed tall-bearded a balanced organic type of food. Give Japanese and the Louisiana irises some acid type (camellia food is convenient).
- to plant bulbs of Dutch, English, and Spanish for spring blooms.
- to water spurias regularly until well established.
- to set up a good watering program. Louisianas and Japanese like a wet swamp-like condition. Spurias and beardless like it damp, but not swampy. Bearded iris need alternate soaking and drying to force root growth.
- to move and replant Pacific Coast natives (Californicaes) in late December. Be sure the little white roots are showing before moving. Water well until they are established.

ORCHIDS CHARLIE FOUQUETTE

Now is the time

- to be sure to repot plants that have finished blooming.
- to check all plants for mix breakdown and renew.
- to check for snails and spread proper bait.
- to clean off greenhouse glass–allow more light during the days with shorter daylight hours.
- to check your furnaces, clean pilot lights, oil fans, etc.
- to feed low nitrogen(10-30-20) fertilizer to cymbidiums.
- to continue light feeding on cyps and phals. Keep moist.
- to feed 18-18-18 to cattleyas showing continued growth through root-tips and leaves.
- to stake new spikes as they appear.
- to clean up leaves, old phal spikes and cattleya sheaths, etc.–all are hiding places for snails.
- to spray or mist the variegata oncidiums in the morning to be dry by nightfall.

ROSES BRIAN DONN

Now is the time

- to start slacking off on the water early in November, so as to avoid spurts of new growth this late in year.
- to do dormant spraying in December even before pruning and continue dormant spraying several times from late December to late January.
- to even begin pruning soon after Christmas, getting rid much top growth, then do a final pruning in January.
- to visit garden centers to purchase bare-root plants. The season may begin in late December.

VEGETABLES GEORGE JAMES

Now is the time

- to set out in the garden started plants of lettuce, celery, broccoli, cabbage, cauliflower, Brussels sprout, and Swiss chard.
- to remember that seeds of any kind will germinate slowly and may decay because of low temperatures and wet soil.
- to prepare soil so that after the holidays, roots of asparagus, artichoke, rhubarb, and plants of cane berries, strawberries, grapes, and deciduous fruit trees can be planted.

GREEN THUMB MABLE MARBLE

Now is the time

- to cut mums to within 6 to 8 inches of the ground after blooming. Feed to encourage new growth for next year's additional plants.
- to be sure to use snail and slug bait regularly.
- to plant bulbs for spring color; tulips and hyacinths after Thanksgiving. Be sure to refrigerate 4 to 6 weeks before planting.
- to set out winter-spring type annuals for continued garden beauty.
- to apply dormant oil sprays in December to control pests and disease for next year.
- to feed birds-of-paradise. Cut out dead growth from clump to improve appearance.
- to use holly and pyracantha prunings as Christmas decorations. Can also select and plant out such ornamentals from cans.

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ERRATA — Sep-Oct 1981

Two proofreaders, four eyes, but none looked at the captions which should have read:

(p 145) I'ISNIYATAM, A Cahuilla Word Book.

(p 147) *Tillandsia rothii, Tillandsia straminea.*

(p 153) Peppermint geranium

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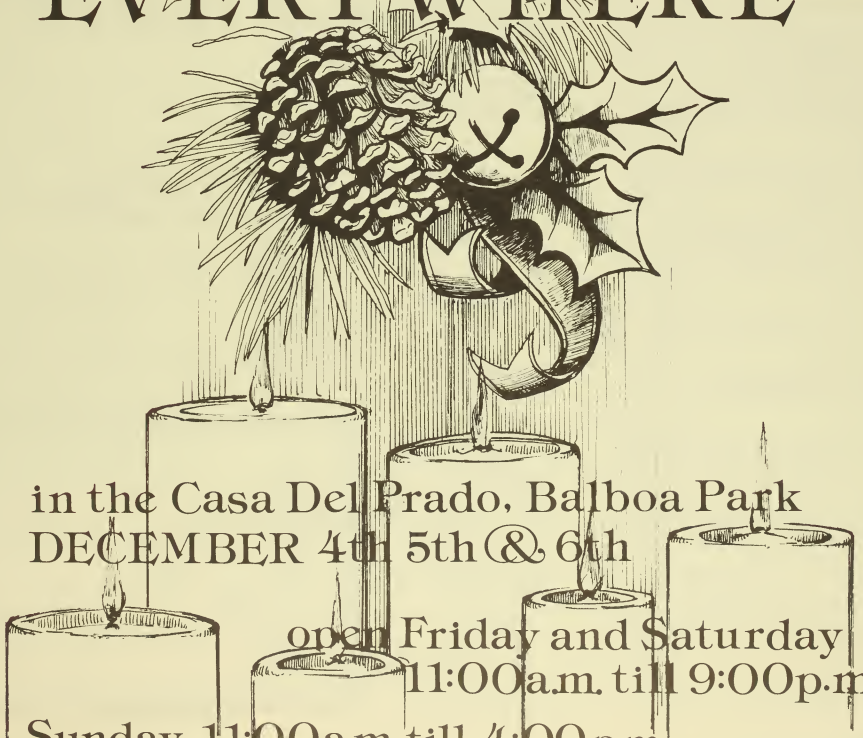

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